1886MNRAS..47...28L

Observations of Comets made at Mr. Wigglesworth's Observatory with the 15·5-*inch Cooke Refractor.* By J. G. Lohse.

Comet 1885 *a, Barnard.*

Date	Scarborough Mean Time	Δα ☄ − *	Δδ	α ☄	δ ☄	Num. of Comp.
1885	h m s	s		h m s		
July 17	11 51 42	+ 25·27	—	17 3 54·79	—	7

Comet 1885 *d, Fabry.*

Date	Scarborough Mean Time	Δα ☄ − *	Δδ	α ☄	δ ☄	Num. of Comp.
1885	h m s	s	′ ″	h m s	° ′ ″	
Dec. 7	8 37 23	− 19·03	+2 4·8	0 25 9·54	+20 52 43·8	5
„ 24	8 41 2	+ 23·38	+1 23·6	23 54 16·75	+20 40 52·1	6,6
„ „	9 12 40	+ 21·54	+1 22·5	23 54 14·91	+20 40 51·0	3
„ 28	7 35 15	− 5·26	+2 13·6	23 48 58·95	+20 44 20·4	7

Comet 1885 *c, Barnard.*

Date	Scarborough Mean Time	Δα ☄ − *	Δδ	α ☄	δ ☄	Num. of Comp.
1885	h m s	m s	′ ″	h m s	° ′ ″	
Dec. 6	11 53 53	− 43·48	−1 13·9	4 14 57·79	+ 4 55 56·4	8,8
„ 7	12 24 15	− 20·87	−6 21·3	4 12 29·90	+ 5 3 53·2	4
„ 10	11 11 12	− 3·56	+7 38·2	4 5 13·27	+ 5 21 1·5	9
„ 13	12 27 7	+ 26·98	+ 19·6	3 57 33·46	+ 5 40 31·6	8
„ 28	11 45 0	−1 32·55	+ 48·5	3 19 54·70	+ 7 41 53·1	5,5
1886						
Jan. 2	10 26 45	− 22·95	−3 59·7	3 8 13·97	+ 8 29 59·7	5

Adopted Mean Places of Comparison Stars for 1885·0 *and* 1886·0.

Date	α	Redn.	δ	Redn.	Authority.
1885	h m s	s	° ′ ″	″	
July 17	17 3 26·57	+2·95	−10 22 15·8	+ 7·9	B.-W., 17^h 3.
Dec. 7	0 25 25·13	+3·44	+20 50 14·0	+25·0	8·5 mag. * connected with B.-W.$_2$ 0^h $\frac{838 + 840}{2}$
	0 33 52·56		+20 48 27·1		
24	23 53 50·41	+2·96	+20 39 2·9	+25·6	B.-W.$_2$ 23^h 1096.
28	23 49 1·35	+2·86	+20 41 41·4	+25·4	9 mag. * connected with B.B. VI. + 20° 5397.
	23 50 12·68		+20 42 30·3		
Dec. 6	4 15 37·16	+4·11	+ 4 57 8·9	+ 1·4	11 mag. * connected with Glasg. Cat. 1067.
	4 19 50·69		+ 4 53 10·1		
7	4 12 46·65	+4·12	+ 5 10 12·9	+ 1·6	10 mag. * connected with Glasg. Cat. 992.
	4 5 12·71		+ 5 13 21·2		
10	4 5 12·71	+4·12	+ 5 13 21·2	+ 2·1	Do.
13	3 57 2·35	+4·13	+ 5 40 9·3	+ 2·7	ν Tauri, Berliner Jahrb.
28	3 21 23·23	+4·02	+ 7 40 59·1	+ 5·5	B.B. VI + 7° 510.
1886					
Jan. 2	3 8 36·20	+0·72	+ 8 34 6·4	− 7·0	Ast. Nach. 2709 [$\frac{1}{3}$ (Sant, + 8° 40 + Schj. 927-28 + Glasg. 748)].

Mr. Wigglesworth's Observatory,
Scarborough : 10 *Nov.*, 1886.

1886MNRAS..47...28L

Notes.

July 17.—The comet is faint and round; it becomes gradually brighter towards the middle, but has no real nucleus. It is much fainter than on July 14; it was well seen on that day, but clouds came on before an observation could be obtained.

December 24.—Comet Fabry is round and has a stellar nucleus; it is about 2′ in diameter, but still faint. Clouds lit up by the Moon were troublesome.

December 6.—Comet Barnard is faint and small. The coma extends farther on the following side than in other directions. The central bright part appears granulated, and equals in brightness about an 11th mag. star. The diameter of the comet is 4 to 5 seconds in time.

December 10.—The comet is decidedly more extended on the following side, and about of the same brightness as on December 6 and 7. The diameter is about 7 seconds.

December 28.—The comet was often barely visible through the faint clouds passing. At intervals it was snowing and very stormy. The comet is elongated on the following side, and the nucleus is brighter than that of comet *d*, but the latter seems to be the larger one, though the difference is very small.

January 2.—The sky being hazy the comet appeared very faint.

The observations were made with a wire micrometer by Merz, kindly lent by Lord Crawford. Only for the first observation a transit micrometer, with a set of fixed wires, was used.

Refraction has always been taken into account.

For the catalogue places of most of the comparison stars I am indebted to Dr. Copeland.

The co-ordinates of the Observatory have been taken from the 6-inch Survey Map, and are:

Longitude of Observatory $= 1^{m}38^{s}\cdot9$ west of Greenwich.
Latitude ,, $= +54° 16' 30''$.

1886MNRAS..47...28L

Observations of Phenomena of Jupiter's Satellites, made at Windsor, New South Wales, in the year 1886.

By John Tebbutt.

I send herewith my observations of phenomena of *Jupiter's* satellites during the current year. The Fellows will, doubtless, be glad to learn that I have added to my Observatory appliances a fine Equatorial Refractor of 8 inches aperture, with which I propose to continue not only the observations of the eclipses but also those of the transits and occultations. My telescope of 4½ inches aperture was hardly equal to the work of observing the two last-mentioned phenomena. I also intend to follow more extensively the work of double star observation. The large Equatorial, which is driven by clockwork, was constructed by Grubb, of Dublin, for the late Dr. Bone, of Castlemaine, Victoria, and its object-glass, both from Mr. Ellery's and my own short experience with it, appears to be one of great excellence. In the accompanying table the telescope with which each observation was made is distinguished by the initial letter of the maker's name. C. and G. denote the Cooke and Grubb Equatorials of 4½ and 8 inches aperture respectively.

Phenomena of Jupiter's Satellites.

Day of Obs.	Sat.	Phenomena.	Phase.	Telescope.	Power.	Windsor Mean Time.	Correction to N. Almanac.
						h m s	m s
March 28	I.	Ecl. R.	First seen	C.	180	13 30 15·8	+ 1 26·0
28	I.	„ „	Full brightness	„	„	13 31 37·1	
28	IV.	„ D.	Last seen	„	130	14 38 32·9	−15 34·9
28	IV.	Ecl. R.	First seen	„	„	16 28 4·7	+ 8 53·9
April 1	III.	„ „	First seen	„	180	6 55 19·2	+ 1 13·4
1	III.	„ „	Full brightness	„	„	7 0 43·4	
4	I.	„ „	First seen	„	„	15 22 48·2	+ 0 8·4
4	I.	„ „	Full brightness	„	„	15 25 49·2	
22	I.	„ „	First seen	„	„	8 7 55·1	+ 0 7·3
22	I.	„ „	Full brightness	„	„	8 10 6·2	
24	II.	„ „	First seen	„	„	6 36 12·2	− 0 13·6